Small Business Innovation Research/Small Business Tech Transfer

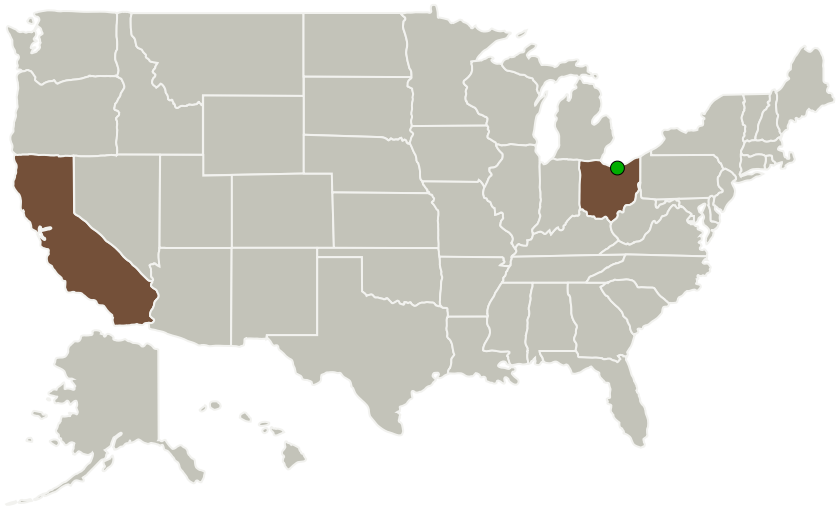
Secure DTN Communications, Phase I

Completed Technology Project (2013 - 2013)

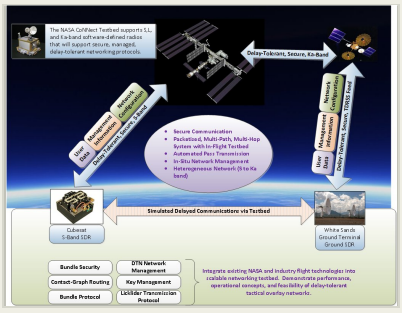
Project Introduction

For the proposed CoNNeCT experiment, Innoflight and John Hopkins University Applied Physics Laboratory (JHU/APL) have formed a significant complimentary union with respect to each one's expertise in space networking. Innoflight is bringing forward design and development expertise in cryptographically secure Internet Protocol (IP) for space links per NSA specifications while JHU/APL brings formidable Disruption Tolerant Networking (DTN) protocol and application to run above the secure transport. The two combined provide a high-value space communications solution that can be tested and refined using CoNNeCT. In addition, each one separately provides its own independent solution for a large variety of commercial and government applications.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Innoflight, Inc.	Lead Organization	Industry Veteran-Owned Small Business (VOSB)	San Diego, California
Glenn Research Center(GRC)	Supporting Organization	NASA Center	Cleveland, Ohio



Secure DTN Communications

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Primary U.S. Work Locations	
California	Ohio

Project Transitions

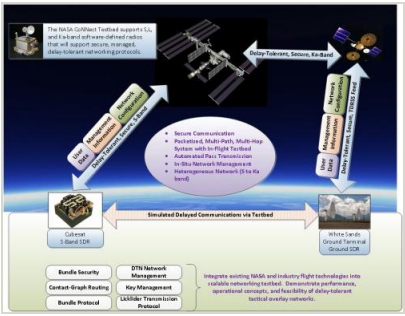
May 2013: Project Start

November 2013: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/140426)*

Images



Project Image
Secure DTN Communications
(https://techport.nasa.gov/image/125822)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Innoflight, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Jeffrey Janicik

Co-Investigator:

Jeffrey Janicik

Secure DTN Communications, Phase I

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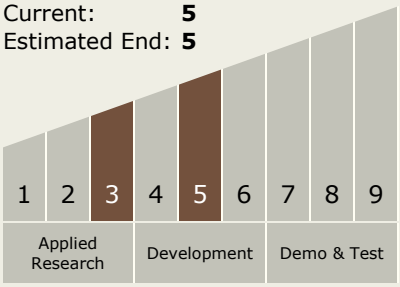
Technology Maturity (TRL)

Start: **3**
Current: **5**
Estimated End: **5**



Technology Areas

Primary:

- TX05 Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
  - TX05.3 Internetworking
    - TX05.3.3 Information Assurance

Target Destinations

The Moon, Mars, Outside the Solar System, The Sun, Earth, Others Inside the Solar System